



# DEQ 101

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# AIR QUALITY



Rick Sprott,  
Director

# STATUTORY AUTHORITIES

- ✓ Federal Clean Air Act
- ✓ Utah Air Conservation Act



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Air Quality

# OUR MISSION

Protect public health  
and the environment  
from the harmful effects  
of air pollution



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# PARTNERSHIPS

- Industry Groups
- Environmental Groups
- City and County Officials
- Local Health Departments
- Environmental Protection Agency
- Western Regional Air Partnership

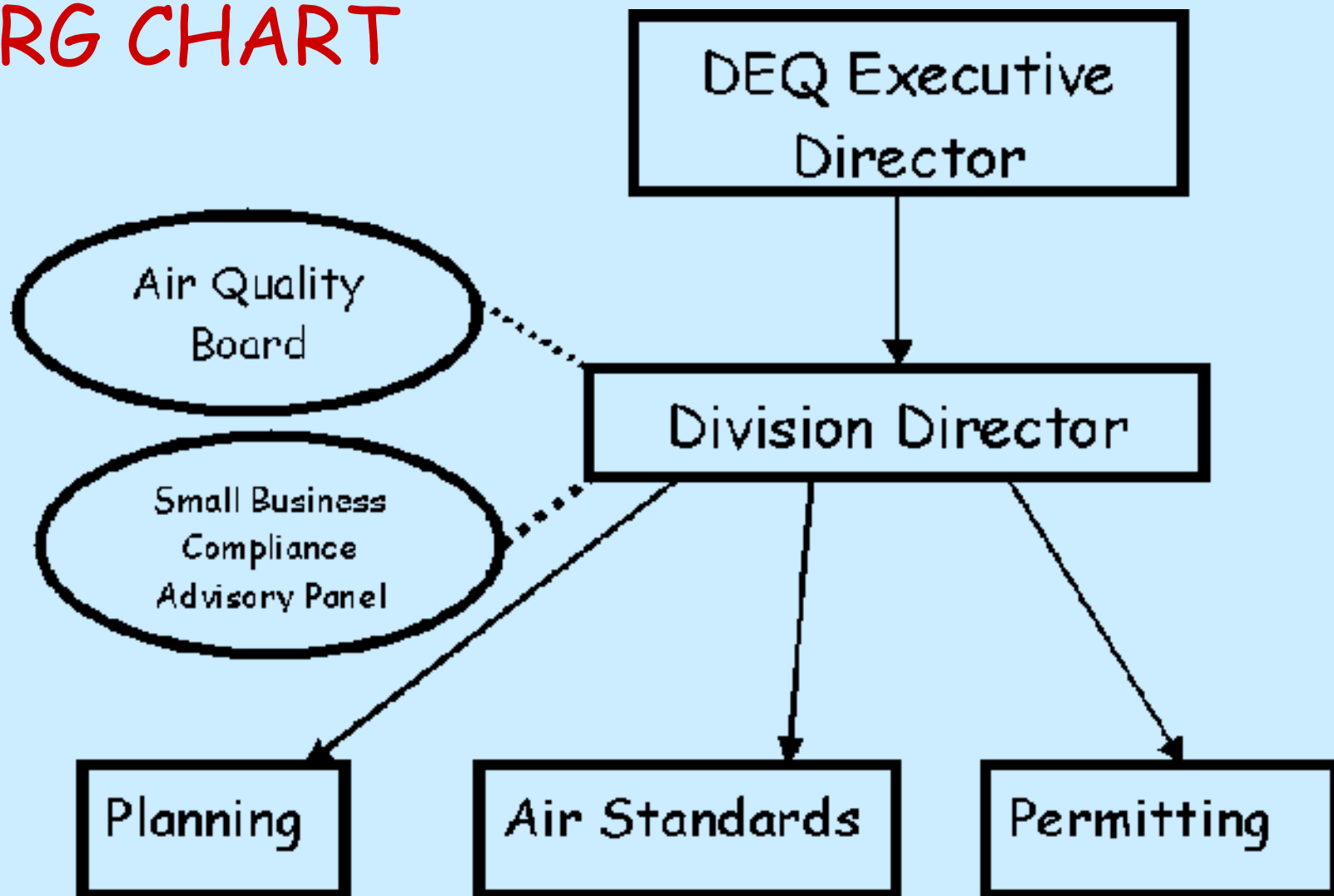


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# DIVISION ORG CHART



# DIRECTOR'S OFFICE

Accounting and budget

Staff attorney

Desktop support

Toxicology

Director serves as Executive Secretary to the  
Air Quality Control Board.



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# PLANNING BRANCH

State Implementation Plans

Rules development

Emissions inventories

Air modeling

Mobile sources

Database and web functions



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# AIR STANDARDS

- Air Monitoring Center
- Compliance and Inspection
- Hazardous Air Pollutants
- Lead-based paint
- Asbestos



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# PERMITTING

- Operating Permits
- New Source Review
- Small Business Assistance



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# HOW ARE WE DOING?



The air is cleaner today than it was 10 years ago!

On the other hand, we know that very small quantities of air pollution are more harmful than we knew 10 years ago.

We don't know enough about Hazardous Air Pollutants (HAPs), especially about interactions among them.



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# AIR QUALITY STANDARDS

EPA establishes health standards based on epidemiological studies and laboratory tests.

Standards are set to protect the most sensitive people - elderly, children, people with respiratory disease.

Cost is not considered in setting the standards—it is considered in implementing the standards.



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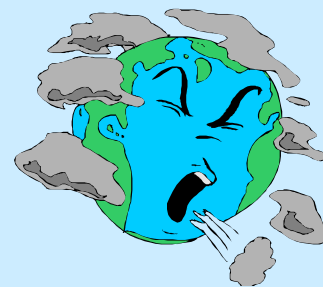
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# POLLUTANTS OF NATIONAL CONCERN

**Particulate Matter ( $PM_{10}$  and  $PM_{2.5}$ )** - Spread out over wide area

Problem / Health Effect: Gets caught deep in lungs - Asthma. Recent evidence it affects the heartbeat.

Sources: Vehicles, woodburning, tilling (summer), sand/gravel operations



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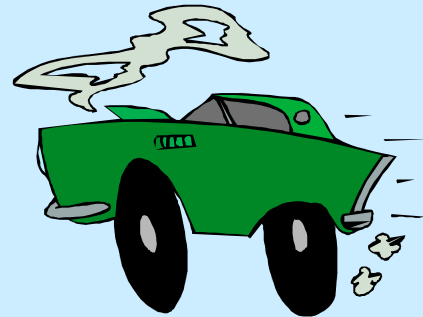
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# POLLUTANTS OF NATIONAL CONCERN

**Ozone ( $O_3$ )** - Spread out over wide area

Problem / Health Effect: Long-term lung damage (cracking, etc)

Sources: Vehicles, forests, combustion processes



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# POLLUTANTS OF NATIONAL CONCERN

**Carbon Monoxide (CO)** – Very localized

Problem / Health Effect: Short-term  
suffocation

Sources: **VEHICLES**, woodburning, space  
heating



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# AIR QUALITY STANDARDS

- We've had trouble meeting:
  - Ozone: 80 ppb - (8-hr)
    - 120 ppb - (Old 1-hr Standard)
  - New PM<sub>2.5</sub> Standard - Monitoring
    - 15  $\mu\text{g}/\text{m}^3$  (annual)      • 65  $\mu\text{g}/\text{m}^3$  (24-hr)
    - PM<sub>10</sub>: 150  $\mu\text{g}/\text{m}^3$  (24-hr)

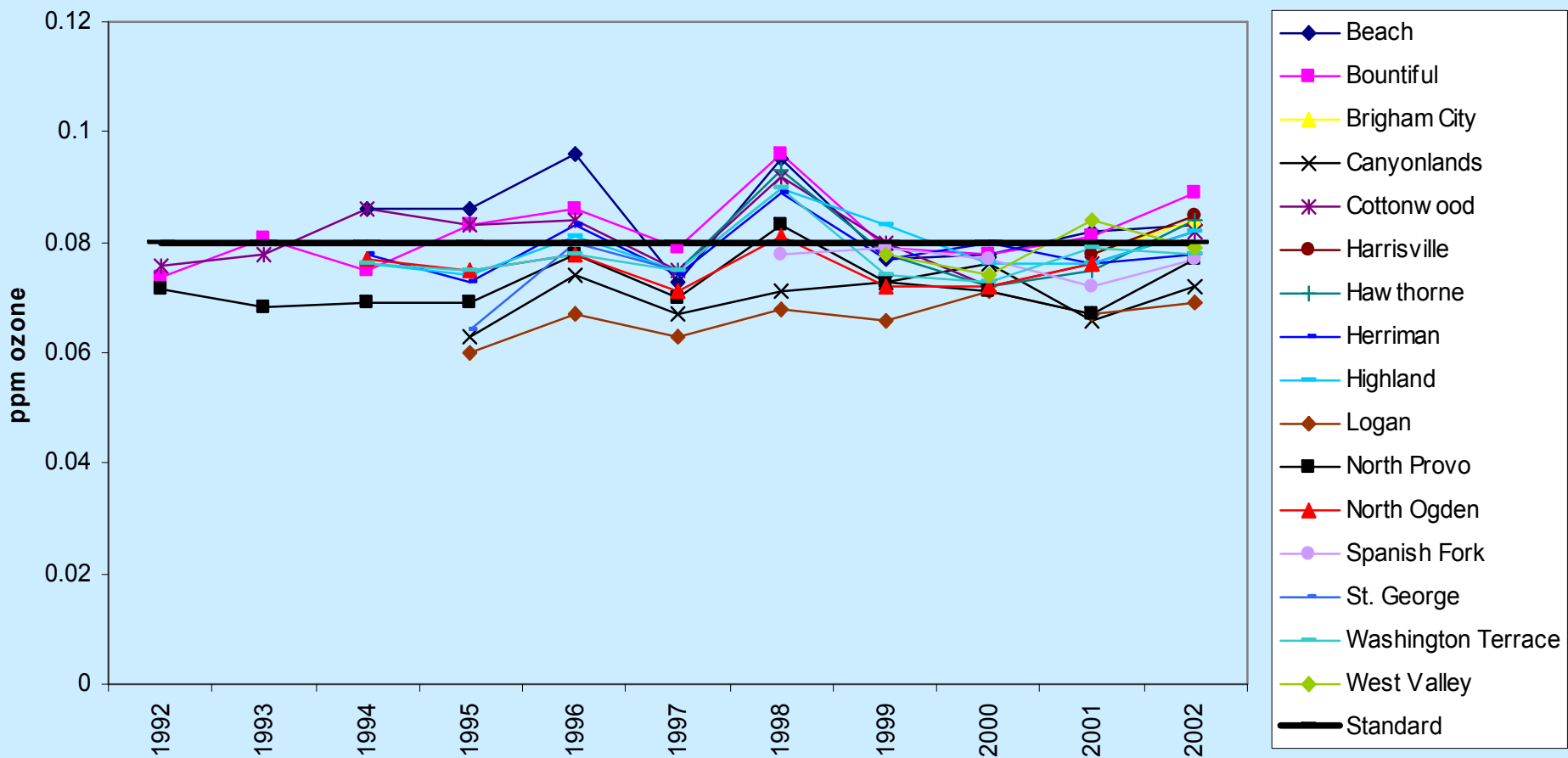


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## 4th High, Daily Maximum, 8-Hour Ozone Trends





# AIR MONITORING NETWORK

Monitors are located throughout Utah

Concentrated along Wasatch Front



**National Ambient Air Quality Standards  
Non-attainment and Maintenance Areas  
in the State of Utah  
May, 2001**



# AIR PERMITS

Two types:

- ➔ Approval Orders (AO): New Source Review (NSR) or construction permits - Title I of CAA
  - ✓ Prevention of Significant Deterioration (PSD)
  - ✓ Major or Non-Attainment NSR
  - ✓ Minor NSR
- ➔ Operating Permits - Title V of CAA



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# APPROVAL ORDERS

Required for new, modified or relocated sources

Exemptions for small sources

NOT meant to control nuisances such as odors or noise or to be used as a zoning mechanism



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# ANNUAL PROGRAM EFFORT

471 Permitting documents in FY03

326 Approval Orders issued

145 Other misc. documents

Sales tax exemptions

Name changes

Emissions banking actions

Etc.



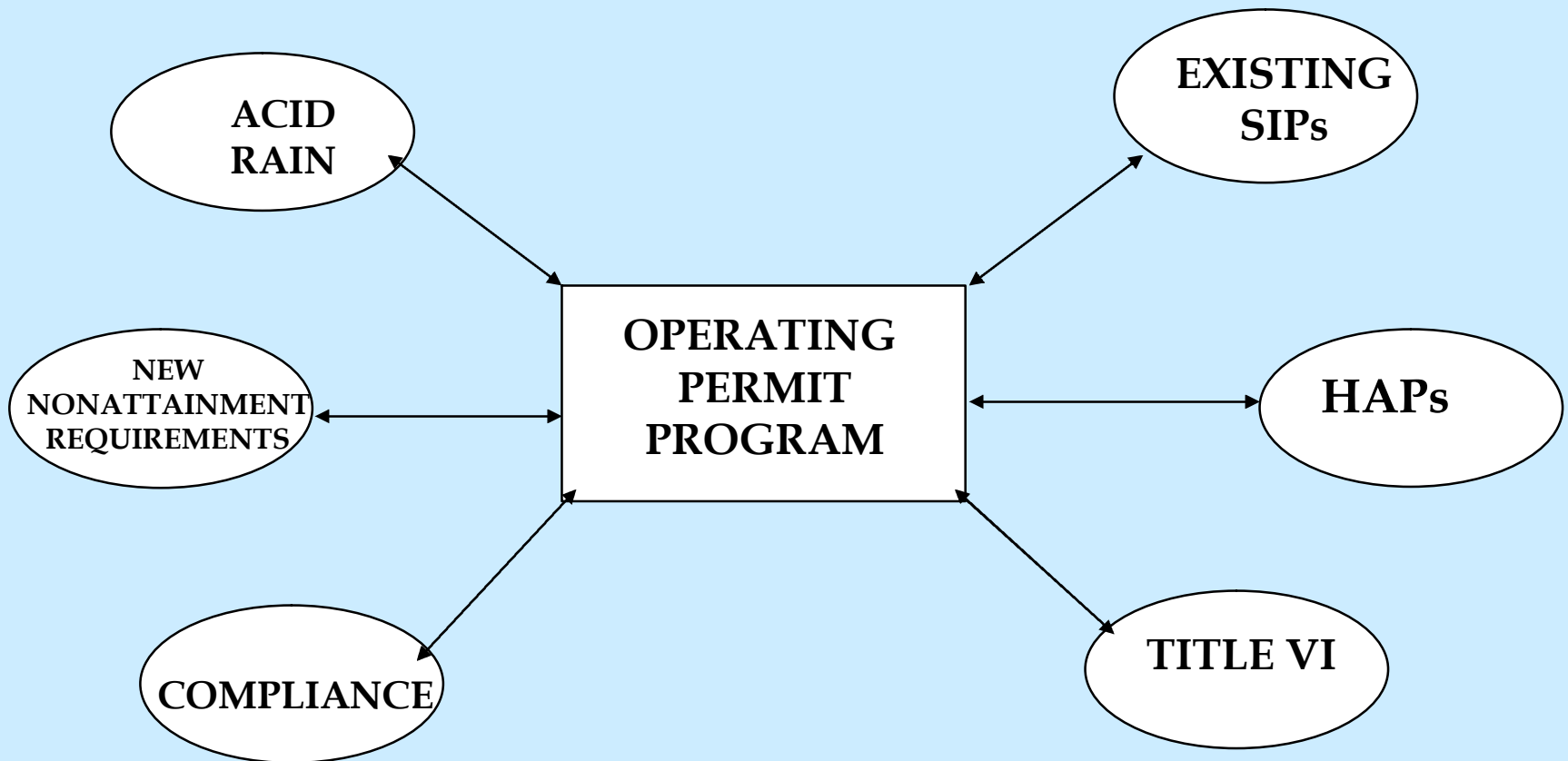
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# TITLE V OPERATING PERMIT PROGRAM

Consolidate requirements



# TITLE V OPERATING PERMIT PROGRAM

Greater certainty for sources

An enforcement tool

Five-year term

Public/EPA involvement

Monitoring, record keeping, and reporting

Compliance certification



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# COMPLIANCE

Over 2,000 sources regulated

Inspections conducted to determine compliance

100-150 Audits performed annually to ensure compliance with emissions limits and inventory accuracy



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# COMPLAINTS RECEIVED

400-500 Annually



55% dust-related

40% odor-related

5% other

Many minor nuisances



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# HAPS (Hazardous Air Pollutants)



Delegated federal program

Focus: Determine compliance with State and Federal regulations involving emissions of hazardous air pollutants.



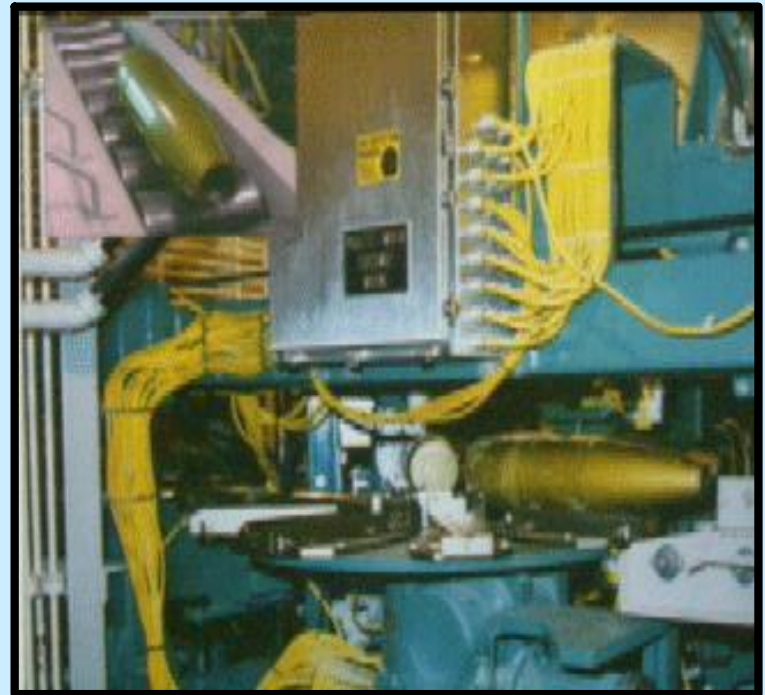
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# NESHAP

National Emission Standards  
Hazardous Air Pollutants



# MACT

Maximum Achievable  
Control Technology



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**Asbestos  
NESHAP**



**Lead-  
based  
Paint**



**Asbestos  
in Schools**

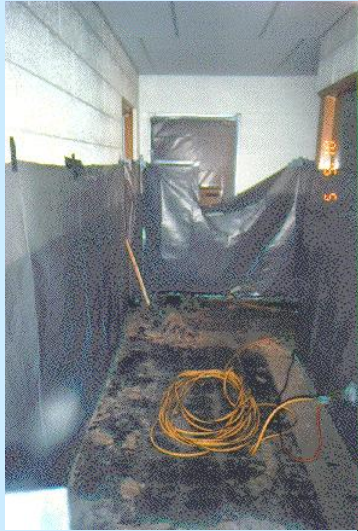


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# Lead-based Paint AHERA



## Asbestos NESHAP



## State Asbestos Rules

# CURRENT ISSUES

NSR Reform

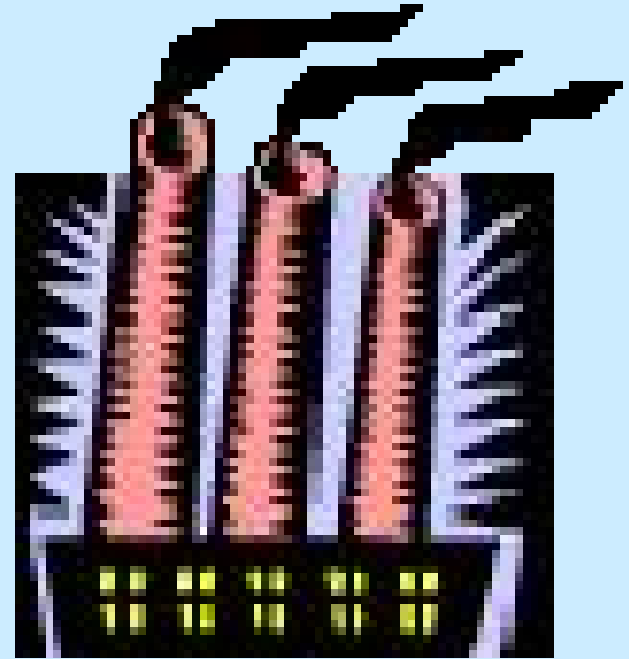
Multi-pollution legislation

WRAP & Regional Haze

EPA Oversight & State Primacy

New Power Plants in Utah

Sand and Gravel Pits



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FOR MORE INFORMATION

Choose Clean Air Website

[www.cleanair.utah.gov](http://www.cleanair.utah.gov)



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